**3GPP TSG-CT WG1 Meeting #134-eC1-221272**

**E-Meeting, 17th – 25th February 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** | **4012** | **rev** | **-** | **Current version:** | **17.5.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | Correction to the validity conditions for cause value #78 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5GSAT\_ARCH-CT | | | | |  | ***Date:*** | | | 2022-02-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | Based on the current conditions for the valdity of cv#78, if either the distance-based condition or the timer-based condition are fulfilled, cv#78 is considered valid. This logic is incorrect: both conditions need to be fulfilled in order for cv#78 to be valid. In other words, if any of the conditions becomes unfulfilled, cv#78 should be considered invalid. | | | | | | | | |
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| ***Summary of change:*** | | If any of the distance-based condition or the timer-based condition becomes unfulfilled, cv#78 is considered invalid. | | | | | | | | |
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| ***Consequences if not approved:*** | | Denial of service | | | | | | | | |
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| ***Clauses affected:*** | | 4.23.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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\* \* \* First Change \* \* \* \*

### 4.23.2 List of "PLMNs not allowed to operate at the present UE location"

For 3GPP satellite NG-RAN the UE shall store a list of "PLMNs not allowed to operate at the present UE location". Each entry consists of:

a) the PLMN identity of the PLMN which sent a message including 5GMM cause value #78 "PLMN not allowed to operate at the present UE location" via satellite NG-RAN access technology;

b) the geographical location, if known by the UE, where 5GMM cause value #78 was received on satellite NG-RAN access technology.

Editor's note: A minimum value can be optionally provided by the network in the same message as cause value #78, but IE naming and definition is FFS.

Before storing a new entry in the list, the UE shall delete any existing entry with the same PLMN identity. Upon storing a new entry, the UE starts a timer instance associated with the entry with an implementation specific value that shall not be set to a value smaller than the timer value indicated by the network, if any.

The UE shall not attempt to access a PLMN via satellite NG-RAN access technology which is part of the list of "PLMNs not allowed to operate at the present UE location" if:

a) the current UE location is known, a geographical location is stored for the entry of this PLMN, and the distance from location where EMM cause value #78 was received to the current UE location is smaller than a UE implementation specific value. This UE implementation specific value shall not be set to a value smaller than the value indicated by the network, if any; and

Editor's note: A minimum value can be optionally provided by the network in the same message as cause value #78, but IE naming and definition is FFS.

b) the timer associated with the entry of this PLMN is running.

NOTE: If the current location is not known or the geographic location is not stored for the entry of this PLMN, UE can ignore condition a).

The list shall accommodate three or more entries. When the list is full and a new entry has to be inserted, the oldest entry shall be deleted.

Each entry shall be removed if for the entry:

a) the UE successfully registers to the PLMN stored in the entry; or

b) the timer instance associated with the entry expires; or

c) the distance from location where EMM cause value #78 was received to the current UE location reaches the UE implementation specific distance.

When the UE is switched off, the UE shall keep the list of "PLMNs not allowed to operate at the present UE location" in its non-volatile memory. The UE shall delete the list of "PLMNs not allowed to operate at the present UE location" if the USIM is removed.

\* \* \* End of Changes \* \* \* \*